IMPACT OF PERSONAL DEMOGRAPHIC PROFILE ON ORGANIZATIONAL CLIMATE BY THE CONTROLLING FACTOR OF WORK COMMITMENT

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ABSTRACT

In any organization where there is a conducive environment or climate, employees excel work commitment have been existed. An organization free of red tapism and other hierarchical problems produces healthy competition among employees, which ultimately increases worker commitment in their job. Research studies show that there is a significant influence of the organizational climate on different psycho-social variables of the employer. Based on all these, the researchers of this study have been provoked to study the Organizational Climate as a Predictor of employee work commitment.

INTRODUCTION

Organizational climate is the formal system of task and reporting relationships that controls, coordinates, and motivates employees so that they cooperate to achieve an organization's goals. This includes the leadership focus, authority and responsibility, resource policies and planning deployment or implementation. The task of an administrator is to create an organizational structure and culture that encourages employees to work hard and to develop supportive work attitudes and allows people and groups to cooperate and work together effectively.

1.1 Organizational Climate

There are many suggested definitions and frame works to study Organizational Climate. Some of the popular definitions of Organizational Climate are as follows: Forehand and Gilmer [Forehand, G.A., and Von Haller, G. (1964) Environmental variations in studies of organizational behavior. Psychological Bulletin, 62, 361-382] defined Organizational

Climate as "set of characteristics that describes the organization and distinguishes it from other organizations and such characteristics influence the behavior of people in the organization". According to Pareek [Pareek, U. (2002) Training instruments in HRD and Organizational Development. 2nd Edition, Tata McGraw-Hill, Boston] climate can be defined as "Perceived attributes of an organization and its sub systems, as reflected in the way organizations deals with its members, groups and issues".

1.2 Objective

- To study the personal demographic factors (Age, Education and Income) and its influence of employee commitment in relation to organizational climate.

1.3 Hypothesis

- There is no significant impact within the employee's personal demographic variables on influencing factors of organizational climate with regard to workers work commitment.

METHODOLOGY

The study is conducted among the employees of Tamil Nadu State Transport Corporation of Villupurama Division. Tamil Nadu State Transport Corporation is the Government public transport. In the present study the Descriptive Survey method was used. Proportionate stratified random sampling methods have been used. The sample size for the study was scientifically determined. It is calculated that the recommended sample size for the population (Drivers and Conductors) of 16452, (at a confidence level of 95%, and a margin of error (degree of accuracy) of 5%) would be 377 employees of TNSTC of Villupuram division.

2.1 ANCOVA – Tests of Between Subject Effect Age, Work Commitment and Organizational Climate

Table 1: *Result of Between – Subjects Factors of Age of Respondents*

Between-Subjects Factors		
	Value Label	N
Age	Below 30 years	134
	31 to 40 years	134
	41 to 50 years	50
	51 to 58 years	57

The above table shows the classification of the TNSTC workers on the basis of their age. There are four level of age of respondent are classified into four levels. 134 respondents are come under Below 30 years and 31 to 40 years. 50 respondents are come under 41 to 50 years. 57 respondents are come under 51 to 58 years.

Table 2: *Result of ANCOVA Shows the Tests of between Subject Effect Age, Work Commitment and Organizational Climate*

Tests of Between-Subjects Effects					
Dependent Variable: Prevailing good Organizational Climate					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	52.090[a]	7	7.441	4.751	.000
Intercept	79.765	1	79.765	50.925	.000
AGE	**4.405**	**3**	**1.468**	**.938**	**.423**
WorkCommit	**25.282**	**1**	**25.282**	**16.141**	**.000**
AGE * WorkCommit	**2.967**	**3**	**.989**	**.631**	**.595**
Error	574.843	**367**	1.566		
Total	4340.000	375			
Corrected Total	626.933	374			
a. R Squared = .083 (Adjusted R Squared = .066)					

The above table shows test result to evaluates the interaction between the covariate (Work commitment) and the factor (Age of Worker) in the prediction of the dependent variable of Prevailing organizational climate. The interaction source is labeled **AGE * WorkCommit**. The above result results suggest the interaction is not significant, F (3, 367) = .631, p = .595. That is, p (.595) > (.01). A significant interaction between the covariate of work commitment and the Age of respondent suggests that the differences on the dependent variable of organizational work commitment among groups vary as a function of the covariate. the findings confirm to proceed with ANCOVA analysis.

Table 3: *Levene's Test of Equality of Error Variances of Worker Age, Work Commitment*

Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Prevailing Good Organizational Climate			
F	**df1**	**df2**	**Sig.**
2.239	3	371	.083
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + AGE + WorkCommit + AGE * WorkCommit			

From the above output it is concluded that the underlying assumption of homogeneity of variance for the one-way ANCOVA has been met – as evidenced by F (3, 371) = 2.239, p = .083. That is, p (.083) > α (.01).

The covariate of workers work commitment is included in the analysis to control for the differences on the independent variable of four level of workers age. The primary purpose of the test of the covariate is that it evaluates the relationship between the covariate of work commitment and the dependent variable of prevailing good organizational climate, controlling for the factor of age of respondent (i.e., for any particular group). In the

above analysis it is confirmed that the relationship is significant, F (1, 367) = 16.141, $p <$ .001. it is concluded that there is a relationship (effect) between the covariate of Worker work commitment and the dependent variable of prevailing organizational climate.

The ANCOVA result also indicate the group source (labeled **Age** on the ANCOVA output) evaluates the null hypothesis that the population adjusted means are equal. The results of the analysis indicate that this hypothesis should be accepted, F (3, 367) = .938, $p >$ .001. The test assesses the differences among the adjusted means for the four groups, which are reported in the Estimated Marginal Means box as 3.511 (Below 30 years), 3.344 (31 to 40 years), 3.652 (41 to 50 years), and 3.375 (51 to 58 years).

Table 4: *Estimated Marginal Means of Age of Respondent*

Dependent Variable: Prevailing good Organizational Climate				
Age	**Mean**	**Std. Error**	**95% Confidence Interval**	
			Lower Bound	**Upper Bound**
Below 30 years	3.277[a]	.119	3.043	3.511
31 to 40 years	3.127[a]	.110	2.910	3.344
41 to 50 years	3.271[a]	.194	2.890	3.652
51 to 58 years	2.990[a]	.196	2.604	3.375
a. Covariates appearing in the model are evaluated at the following values: workcommit = 3.0027.				

2.1.1 Calculating the Measure of Association (ω^2)

Calculating the measure of association (omega squared) in order to know the four level of age of TNSTC workers account for variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

$$\omega^2 = \frac{SS_B - (K-1) MS_W}{SS_T + MS_W} \quad = \frac{4.405 - (4-1) 1.566}{626.933 + 1.566} \quad = \frac{-0.293}{628.499} \quad = -0.000466$$

It is concluded that the main effect of the independent variable (Age) is insignificant controlling for the effect of the covariate (Work Commitment). The four level of age of TNSTC workers account for approximate -0.000466 (-.0%) variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

2.2 ANCOVA – Tests of Between Subject Effect Education, Work Commitment and Organizational Climate

Table 5: *Result of Between – Subjects Factors of Education level of Respondents*

Between-Subjects Factors		
	Value Label	**N**
Education	SSLC	54
	HSC	193
	DIPLOMA	47

	UG	66
	PG	15

The above table shows the classification of the TNSTC workers on the basis of their educational qualification. The education of respondent is classified into five levels. 134 respondents are studied SSLC, 193 respondents are Completed their education upto Higher Secondary level. 47 respondents are having their Diploma. 66 respondents are completed their college level up to Under graduate and 15 respondents are completed Post Graduate Degree.

Table 6: *Result of ANCOVA Shows the Tests of Between Subject Effect Education, Work Commitment and Organizational Climate*

Tests of Between-Subjects Effects					
Dependent Variable: Prevailing good Organizational Climate					
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Corrected Model	62.358[a]	9	6.929	4.479	.000
Intercept	4.296	1	4.296	2.777	.096
E.QUALIFICATION	**11.156**	**4**	**2.789**	**1.803**	**.028**
WorkCommit	**4.391**	**1**	**4.391**	**2.839**	**.093**
E.QUALIFICATION * WorkCommit	**9.293**	**4**	**2.323**	**1.502**	**.201**
Error	564.575	**365**	1.547		
Total	4340.000	375			
Corrected Total	626.933	374			
a. R Squared = .099 (Adjusted R Squared = .077)					

The above table shows test result to evaluate the interaction between the covariate (Work commitment) and the factor (Educational level of Worker) in the prediction of the dependent variable of Prevailing organizational climate. The interaction source is labeled **E.Qualification * WorkCommit**. The above result results suggest the interaction is not significant, F (4, 365) = 1.502, p = .201. That is, p (.201) > (.01). A significant interaction between the covariate of work commitment and the Education level of respondent suggests that the differences on the dependent variable of organizational work commitment among groups vary as a function of the covariate. the findings confirm to proceed with ANCOVA analysis.

Table 7: *Levene's Test of Equality of Error Variances of Worker Age, Work Commitment*

Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Prevailing Good Organizational Climate			
F	**df1**	**df2**	**Sig.**
6.901	4	370	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + WorkCommit + E.QUALIFICATION + E.QUALIFICATION * WorkCommit

From the above output it is concluded that the underlying assumption of homogeneity of variance for the one-way ANCOVA has been met – as evidenced by F (4, 370) = 6.901, p = .000. That is, p (.000) < (.01).

The covariate of workers work commitment is included in the analysis to control for the differences on the independent variable of five levels of workers' Educational qualification. The primary purpose of the test of the covariate is that it evaluates the relationship between the covariate of work commitment and the dependent variable of prevailing good organizational climate, controlling for the factor of age of respondent (i.e., for any particular group among the five levels). In the above analysis it is confirmed that the relationship is significant, F (1, 365) = 2.839, p > .001. it is concluded that there is a relationship (effect) between the covariate of Worker work commitment and the dependent variable of prevailing organizational climate.

The ANCOVA result also indicate the group source (labeled Education Qualification on the ANCOVA output) evaluates the null hypothesis that the population adjusted means are equal. The results of the analysis indicate that this hypothesis should be accepted, F (4, 365) = 1.803, p > .001. The test assesses the differences among the adjusted means for the five groups, which are reported in the Estimated Marginal Means box as 3.290 (SSLC), 3.359 (HSC), 3.613 (DIPLOMA), 4.054 (UG) and 3.432 (PG).

Table 8: *Estimated Marginal Means of Age of Respondent*

Dependent Variable: Prevailing good Organizational Climate				
Education Qualification	**Mean**	**Std. Error**	**95% Confidence Interval**	
			Lower Bound	**Upper Bound**
SSLC	2.955[a]	.170	2.621	3.290
HSC	3.178[a]	.092	2.997	3.359
DIPLOMA	3.255[a]	.182	2.897	3.613
UG	3.616[a]	.223	3.178	4.054
PG	2.398[a]	.526	1.364	3.432
a. Covariates appearing in the model are evaluated at the following values: workcommit = 3.0027.				

2.2.1 Calculating the Measure of Association (ω^2)

Calculating the measure of association (omega squared) in order to know the four level of age of TNSTC workers account for variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

$$\omega^2 = \frac{SS_B - (K-1)\,MS_W}{SS_T + MS_W} = \frac{11.156 - (5-1)\,1.547}{626.933 + 1.547} = \frac{4.968}{625.386} = 0.00794517$$

It is concluded that the main effect of the independent variable (Education) is insignificant controlling for the effect of the covariate (Work Commitment). The five level of

education qualification of TNSTC workers account for approximate 0.00794517 (00.79%) variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

2.3 ANCOVA – Tests of Between Subject Effect Income, Work Commitment and Organizational Climate

Table 9: *Result of Between – Subjects Factors of Income of Respondent*

Between-Subjects Factors		Value Label	N
Monthly Salary	1	Below Rs.10000	122
	2	Rs.10001 - 15000	238
	3	Rs.15001 - 20000	15

The above table shows the classification of the TNSTC workers on the basis of their income. There are three level of income group are classified. 122 respondents are earn a monthly income below Rs.10,000. 238 respondents are earn a monthly income from Rs.10,001 to 15,000 and remaining 15 respondents are earn Rs. 15,001 to 20,000. It is clear from the table that majority of the workers are earn Rs.10,001 to 15,000.

Table 10: *Result of ANCOVA Shows the Tests of Between Subject Effect Income, Work Commitment and Organizational Climate*

Tests of Between-Subjects Effects					
Dependent Variable: Prevailing good Organizational Climate					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	46.735[a]	5	9.347	5.945	.000
Intercept	33.273	1	33.273	21.162	.000
SALARY	**.850**	**2**	**.425**	**.270**	**.763**
WorkCommit	**17.798**	**1**	**17.798**	**11.319**	**.001**
SALARY * WorkCommit	**1.054**	**2**	**.527**	**.335**	**.715**
Error	580.198	369	1.572		
Total	4340.000	375			
Corrected Total	626.933	374			
a. R Squared = .075 (Adjusted R Squared = .062)					

The above table shows test result to evaluates the interaction between the covariate (Work commitment) and the factor (Age of Worker) in the prediction of the dependent variable of Prevailing organizational climate. The interaction source is labeled **SALARY * WorkCommit**. The above result results suggest the interaction is not significant, F (2, 369) = .335, p = .715. That is, p (.715) > (.01). A significant interaction between the covariate of work commitment and the Salary of respondent suggests that the differences on the

dependent variable of organizational work commitment among groups vary as a function of the covariate. the findings confirm to proceed with ANCOVA analysis.

Table 11: *Levene's Test of Equality of Error Variances of Worker Salary, Work Commitment*

Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Prevailing good Organizational Climate			
F	**df1**	**df2**	**Sig.**
5.501	2	372	.004
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			
a. Design: Intercept + WorkCommit + SALARY + SALARY * WorkCommit			

From the above output it is concluded that the underlying assumption of homogeneity of variance for the one-way ANCOVA has not been met – as evidenced by F (2, 372) = 2.239, p = .004. That is, p (.004) < α (.01).

The covariate of workers work commitment is included in the analysis to control for the differences on the independent variable of three level of workers' salary. The primary purpose of the test of the covariate is that it evaluates the relationship between the covariate of work commitment and the dependent variable of prevailing good organizational climate, controlling for the factor of salary of respondent (i.e., for any particular group). In the above analysis it is confirmed that the relationship is significant, F (1, 369) = 11.319, p < .001. it is concluded that there is a relationship (effect) between the covariate of Worker work commitment and the dependent variable of prevailing organizational climate.

The ANCOVA result also indicate the group source (labeled **salary** on the ANCOVA output) evaluates the null hypothesis that the population adjusted means are equal. The results of the analysis indicate that this hypothesis should be accepted, F (2, 369) = .270, p > .001. The test assesses the differences among the adjusted means for the three categories of salary groups, which are reported in the Estimated Marginal Means box as 3.447 (Below Rs.10,000), 3.298 (Rs.10,001 to 15,000), and 4.198 (Rs. 15,001 to 20,000),

Table 12: *Estimated Marginal Means of Salary of Respondent*

Dependent Variable: Prevailing good Organizational Climate				
Monthly Salary	**Mean**	**Std. Error**	**95% Confidence Interval**	
			Lower Bound	**Upper Bound**
Below Rs.10,000	3.189[a]	.131	2.932	3.447
Rs.10,001 – 15,000	3.136[a]	.082	2.974	3.298
Rs.15,001 – 20,000	3.390[a]	.411	2.582	4.198
a. Covariates appearing in the model are evaluated at the following values: workcommit = 3.0027.				

2.3.1 Calculating the Measure of Association (ω^2)

Calculating the measure of association (omega squared) in order to know the four level of age of TNSTC workers account for variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

$$\omega^2 = \frac{SS_B - (K-1)\,MS_W}{SS_T + MS_W} \quad = \frac{.850 - (3-1)\,1.572}{626.933 + 1.572} \quad = \frac{-2.294}{625.361} \quad = -0.00366828$$

It is concluded that the main effect of the independent variable (Salary) is insignificant controlling for the effect of the covariate (Work Commitment). The four level of age of TNSTC workers account for approximate -0.00366828 (-00.36%) variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

CONCLUSION

ANCOVA result confirm that the main effect of the independent variable (Age) is insignificant controlling for the effect of the covariate (Work Commitment). The four level of age of TNSTC workers account for approximate -0.000466 (-00.04%) variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment. ANCOVA result confirm that the main effect of the independent variable (Education) is insignificant controlling for the effect of the covariate (Work Commitment). The five level of education qualification of TNSTC workers account for approximate 0.00794517 (00.79%) variations in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment. ANCOVA result confirm that the main effect of the independent variable (Salary) is insignificant controlling for the effect of the covariate (Work Commitment). The four level of age of TNSTC workers account for approximate -0.00366828 (-00.36%) variation in the opinion of prevailing organizational climate by controlling for the effect of the workers work commitment.

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